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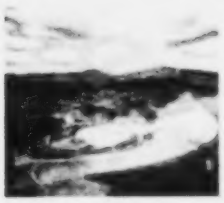
BC HYDRO GREENHOUSE GAS REPORT 2003



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BC hydro

Message from the President and Chief Executive Officer

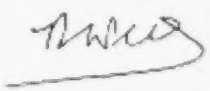
I am pleased to submit to the Voluntary Challenge and Registry (VCR Inc.) BC Hydro's eighth annual public greenhouse gas report documenting our greenhouse gas (GHG) management activities for the calendar year 2002.

BC Hydro's vision is to be the leading sustainable energy company in North America. To support our commitment to sustainability, we balance, track and measure our performance along environmental, social and economic bottom lines.

This report profiles specific measures and initiatives at BC Hydro that limit the growth of GHG emissions, including one of Canada's most aggressive energy conservation efforts, Power Smart; improving the efficiency of our facilities through Resource Smart; and clean energy purchases from independent power producers (IPPs). These initiatives have avoided an estimated 23 million tonnes of GHG emissions from 1989 to 2002 and will avoid a further 30 million tonnes by 2010.

BC Hydro first submitted an action plan to the Voluntary Challenge and Registry (VCR) in 1995 and has been reporting annually ever since. With the start of the VCR's recognition program in 1999, we have achieved gold- or silver-level champion reporter status each year. In 2001 BC Hydro received the VCR Inc. Leadership Award, recognizing our achievements in reducing and avoiding GHG emissions, conducting public outreach, investing in offsets, and demonstrating overall leadership in GHG management. In the time that we have been reporting, we have clearly seen the value in meeting the VCR's criteria, sharing our GHG management strategy, and tracking our progress.

Yours truly,



Bob Elton

President and Chief Executive Officer

ERRATA

A revision has been identified and has been incorporated into this 2003 BC Hydro Greenhouse Gas Report.

The sentence: "BC Hydro's GHG emissions intensity, the measure of emissions per unit of production, was correspondingly down, from 63 tonnes per GWh to 25 tonnes per gigawatt hour in 2002, over 900 per cent less than the Canadian average for electricity of 233 tonnes per GWh." found on page 13 of th Report has been replaced with the following:

"BC Hydro's GHG emissions intensity, the measure of emissions per unit of production, was correspondingly down, from 63 tonnes per GWh to 25 tonnes per gigawatt hour in 2002, over 90 per cent less than the Canadian average for electricity of 233 tonnes per GWh."

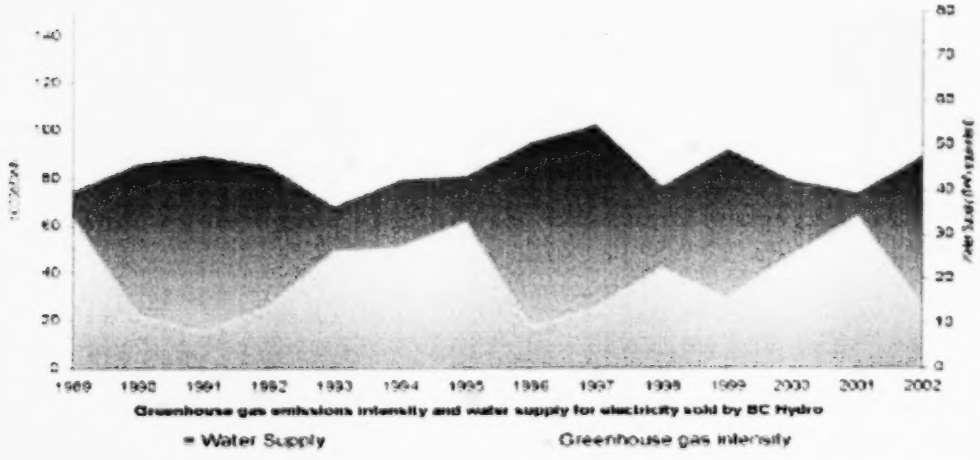
Please remove page 13 from any hard copies you may have and replace with an updated page 13 printed from this document."

105-06237/

Business of BC Hydro

- BC Hydro is a commercial Crown corporation. Under the BC Hydro and Power Authority Act, BC Hydro is to generate, manufacture, distribute and supply power; upgrade its power sites; and purchase power from or sell power to a firm or person.
- BC Hydro's vision is to be the leading sustainable energy company in North America. To support the commitment to sustainability, BC Hydro balances, tracks and measures performance along environmental, social and economic bottom lines. BC Hydro consistently maintains one of the lowest average greenhouse gas emission intensities in the North American electricity sector.
- BC Hydro has constructed an integrated system of 31 hydroelectric facilities, three thermal generation facilities and a number of small diesel generating stations in isolated "off-grid" areas that deliver over 11,000 megawatts of generating capacity. Between 43,000 and 54,000 gigawatt hours of electricity are generated annually. Greenhouse gas emissions vary with water supply as thermal generation increases or decreases. Electricity is delivered to 1.6 million residential, commercial and industrial customers, mainly through an interconnected system of more than 74,000 kilometres of transmission and distribution lines. As of April 1, 2003, BC Hydro has a workforce of approximately 4,500 people.
- In 2002 the B.C. government released a new energy policy, *Energy for our Future: A Plan for B.C.* The policy stipulates that independent power producers will develop new electricity generation in the province, with BC Hydro restricted to improvements at existing plants. As a result, responsibility for electricity sector emissions in B.C. will begin to change, and BC Hydro will reflect this in the way its GHG inventory records and represents electricity-related emissions.

Greenhouse gas emissions intensity and water supply for electricity sold by BC Hydro



2002 highlights

Greenhouse gas emissions down in 2002

- Company-wide emissions are down a significant 60 per cent, from just over 3 million tonnes in 2001 to 1.2 million tonnes in 2002.
- Higher water levels at hydroelectric generating stations allowed BC Hydro to meet demand with less thermal generation.
- A rejuvenated Power Smart energy conservation initiative began to pay dividends in terms of avoided GHG emissions. BC Hydro's Power Smart represents the majority of all Canadian demand-side management activities reported by the Canadian Electricity Association.
- The GHG benefits of the Green Energy program materialized, with power being supplied to the BC Hydro grid from the Hystad Creek and Raging River small hydro projects.
- Overall, purchases of clean GHG-free electricity from Independent Power Producers helped avoid 1.01 million tonnes of CO_2e.

Provincial energy policy charts new course

The B.C. provincial government released a new energy plan with significant implications for BC Hydro. Several GHG-related policy items were included:

- A Clean Energy target directing BC Hydro to acquire 50 per cent of all new electricity from "Clean Energy" sources in B.C.
- A directive for BC Hydro to institute a stepped rate structure, under which large industrial customers are charged a standard rate for electricity they consume up to a threshold amount, and a second, higher rate for additional consumption. The intent of the stepped rate structure is to provide pricing signals that will encourage industrial customers to conserve energy or look for ways to generate energy from their own operations.
- A commitment to update and expand the Energy Efficiency Act and work with the building industry, governments and others to improve energy efficiency in new and existing buildings.

Green Power Certificates open new market opportunities

BC Hydro began a pilot program selling Green Power Certificates (GPCs) to its business and industrial customers for electricity to be delivered in 2003. Green Power Certificates represent real avoided GHG emissions and they provide another vehicle for customers to meet their GHG objectives.

Sustainability is BC Hydro's approach to climate change

BC Hydro is proud of the measures it has put in place, which produce multiple benefits: reduced emissions in the near term, a more robust generation system, lower costs and reduced liability under future GHG regulations mean success across all three bottom lines. BC Hydro believes this approach is a model of "sustainability thinking."

- **Power Smart** is a triple bottom line approach to curtailing demand for electricity. Demand-side management avoids significant GHG emissions, other environmental impacts and future liabilities, and helps to improve the competitiveness of our customers.
- **Resource Smart** makes the most of the large hydro and thermal generating resources we have today, with little to no incremental impact to the environment and often with social, as well as financial, benefit.
- Purchasing B.C. **Clean Electricity** from Independent Power Producers encourages sustainable economic development while lowering GHG emissions.
- **Offsets** allow BC Hydro to utilize flexible market mechanisms that deliver the same environmental and societal benefit as an on-site reduction at less cost, leading to higher performance across all three bottom lines.
- **Integrated Energy Planning** will incorporate GHG emissions considerations into BC Hydro's long-term energy supply decision-making process.

BC Hydro's triple bottom line approach to meeting B.C.'s electricity needs ensures that the company is well positioned to enter an era of constraints on GHG emissions with manageable risk to our cost of energy and income.

Reporting on actions

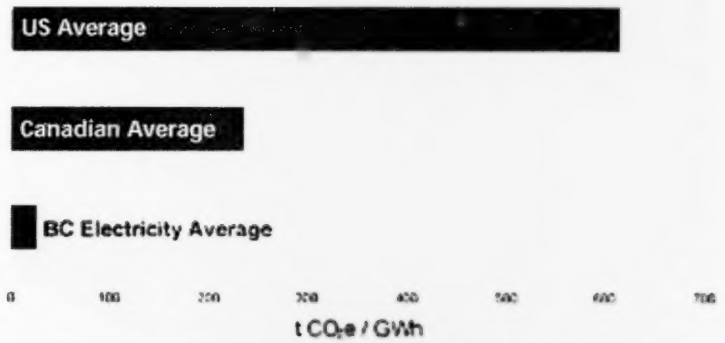
BC Hydro is committed to providing regular reports that document annual GHG emissions and describe the actions taken to reduce and avoid GHG emissions.

In light of Canada's ratification of the Kyoto Protocol, emissions reporting requirements for companies will likely evolve to become more rigorous in the coming years. BC Hydro has a comprehensive GHG inventory and an excellent data archive that will assist in minimizing the costs of meeting GHG regulations and help identify cost-effective opportunities to achieve emission reduction targets. This means BC Hydro is well positioned to mitigate the potential financial impacts from covenants, agreements or policies enacted to reduce GHG emissions in Canada.

Progress report

BC Hydro is consistently one of the lowest greenhouse gas emitters in the North American electricity industry. We are committed to finding innovative ways to manage our GHG emissions and have developed a multi-faceted strategy focusing on demand-side management, operational efficiencies and clean energy.

Comparing greenhouse gas intensity of electricity generation



Comparing greenhouse gas intensity of electricity generation

Using electricity efficiently

Launched in March 1989, Power Smart is BC Hydro's strategic conservation and energy efficiency initiative. Power Smart is designed to encourage customers to use electricity as efficiently as possible. In 2002 a revitalized Power Smart was effective in avoiding 1.00 million tonnes of GHG emissions through 2,643 GWh of customer efficiency programs and activities. The medium-term goal for Power Smart is to achieve 3,500 GWh per year in savings by 2010; this target is in addition to the 2001 level of 2,423 GWh.

Two of the main residential Power Smart programs offered to BC Hydro's customers in 2002 were the *Refrigerator Buy-Back program* and the *Compact Fluorescent Light (CFL) program*.

The Power Smart Refrigerator Buy Back program was introduced to Vancouver Island in October 2002 and offers customers a $30 rebate, free pick-up and recycling of second operating used refrigerators. In 2003 the program was rolled out across the province.

The Compact Fluorescent Light (CFL) program, delivered by the Power Smart Youth Team in conjunction with local retailers and manufacturers, was designed to encourage customers to use energy-efficient lighting in their homes and stimulate the market for energy-efficient lighting. The program was in limited regions in 2002 and was introduced to several more regions in 2003.

The two main commercial Power Smart programs that were offered were *Power Smart Traffic Lights* and *Power Smart Partners*.

Power Smart Traffic Lights provides funding to upgrade incandescent traffic signals to light-emitting diode (LED) traffic signals. LED traffic signals are 90 per cent more energy efficient than traditional incandescent signals and provide municipalities with an opportunity to significantly reduce their energy consumption. Through the program, BC Hydro purchases the LED traffic signals for participating customers, billing them for 50 per cent of the cost of the lights, to be repaid over five years.

Progress report *(continued)*

Power Smart Partners aims to help BC Hydro's largest commercial customers overcome hurdles to implementing energy efficiency projects. BC Hydro assists customers who make energy efficiency a part of their overall management practice, rather than funding one-time projects. Power Smart Partners agree to:

- improve energy efficiency by five per cent;
- create an action plan that outlines key strategies, priorities and actions that will be taken to achieve targets; and
- commit matching dollars to identify energy-saving opportunities.

Partners who make the commitment to energy efficiency can access the following resources:

- **Energy savings opportunity identification** — provides matching funds for businesses to identify electrical energy savings opportunities. Funds can be used towards an Energy Manager, electrical energy audit, building re-commissioning and energy simulation for new buildings.
- **Incentive Fund** — provides funding through a competitive process for the most cost-effective energy efficiency projects.
- **Education and Training** — seminars and training sessions for their employees to help develop their toolkit of energy management skills.
- **e.Points Bonus** — customers who meet or exceed their five per cent electrical efficiency targets are rewarded with further financial incentives.

The Power Smart Partner Program for Health Care and Education customers recognizes that Hospitals, Schools, Universities and Colleges need access to all the resources outlined in the Power Smart Partner Program, but often face more serious budget constraints than commercial customers. BC Hydro provided these customers with Partner benefits at no cost to the institutions.

Using resources efficiently

Resource Smart increases generating efficiency at existing generating stations through cost-effective upgrades and retrofits. Increased efficiency enables BC Hydro to defer construction of new generating facilities and avoids the potential greenhouse gas emissions associated with those future plants. Resource Smart has avoided almost 2.8 million tonnes of GHG emissions since the start of the program in 1987. In 2002 Resource Smart delivered energy gains of 758 GWh. Three new projects this year were:

- Bridge River turbine upgrade project (28 GWh/year),
- G.M. Shrum unit upgrade (81 GWh/year),
- Completion of the tailrace (the portion of waterway immediately below a dam) improvement project at Peace Canyon (49 GWh/year).

Resource Smart projects expected to be on-line before 2007 will contribute even more to BC Hydro's GHG management activities. The 15 planned or ongoing internal efficiency projects will deliver an additional 1,000 GWh of energy, which will avoid up to 360,000 tonnes of GHG emissions in 2007.

Sulphur hexafluoride (SF_6) gas is used to insulate and protect transmission equipment. This potent GHG can escape from worn or leaking seals or other equipment components, or through routine handling. Started in 1999, the SF_6 management program is now fully operational, and involves detailed tracking of SF_6 losses from equipment and follow-up equipment repairs or replacements. The total losses of SF_6 in 2002 were 2,674 kilograms, equivalent to 64,000 tonnes of GHGs. This total is down from an estimated base-year level of 120,000 tonnes.

Adding clean generation

BC Hydro has committed to purchase 10 per cent of new electricity required between 2000 and 2010 from green

Progress report *(continued)*

energy sources, and to meet the provincial target of purchasing 50 per cent of all new electricity required between 2002 and 2012 from B.C. clean generation resources.

- A B.C. clean electricity resource is renewable or results in a net environmental improvement over gas-fired generation.
- A B.C. green electricity resource is renewable, licensable and socially responsible, and has a low environmental impact.

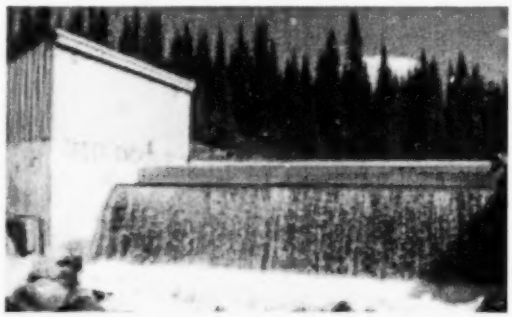
Both of these generation types avoid the addition of thermal energy to BC Hydro's resource stack and thereby reduce GHG emissions. In 2002 clean and green energy purchases avoided 1.01 million tonnes of GHG emissions. Two of the first green Independent Power Producers to provide electricity to BC Hydro this year were:

Hystad Creek

In June 2002 the Hystad Creek small hydro project was connected to the provincial electricity grid. Hystad Creek is a 6 MW project, located about 5 km west of Valemount, B.C. The project is run-of-river, which means there is no reservoir. A low weir acts as a diversion structure but will not result in the flooding of upstream areas. Owned by East Twin Creek Hydro Ltd., the Hystad Creek facility will generate approximately 20 GWh of electricity per year, enough to supply about 2,000 B.C. households.

Raging River

The Raging River small hydro project was connected to the grid in May 2002. Located approximately 26 km east of Port Alice, the project makes use of a hydroelectric site originally commissioned in the early 1900s to supply energy to a nearby mine. In 1960 Cominco rebuilt the facility, which then supplied energy to their Benson Lake mine until the mid-1970s. Now refurbished by Raging River Power and Mining Inc., the 2 MW capacity project is expected to generate approximately 13 GWh of electricity per year. The project is considered green because the dam has been in place for more than 100 years and its operations will have minimal incremental environmental impact. The new facility will maintain both the upstream ecosystem that has evolved, and required levels of downstream river flow.



BC Hydro announced its 2002/2003 tender-based Green Power Generation procurement process in October 2002, with a goal to acquire up to 800 GWh/year of competitively priced green electricity from projects to be designed, built and operated by IPPs in B.C. Seventy submissions were received in the Request for Qualification, up from 22 the year before. In September 2003, projects producing a total of 1,000 GWh of green energy were awarded long-term contracts with BC Hydro.

To keep the flow of new clean generation projects moving and enable BC Hydro to meet the Clean Energy target, many activities are undertaken to assist IPPs in identifying the most cost-effective projects in the most favourable locations. Some of the activities undertaken in 2002 included:

Energy Studies — BC Hydro completed Phase 2 of its Green Energy Resources Study for British Columbia. Focusing primarily on the mainland of B.C., this study provides a pre-feasibility assessment of the following green resources:

- wind
- biomass
- geothermal
- small-scale wind
- small hydro
- tidal current
- integrated photovoltaic solar

Progress report *(continued)*

The summary report and the full consultant reports for many of these resources are posted on BC Hydro's website (www.bchydro.com/greenpower).

Green Electricity Resource mapping — BC Hydro and Canadian Cartographics partnered to create *Green Electricity Resources of B.C.*, a large wall map that shows optimal locations and provides information on the following green resources in the province: wind, small hydro, geothermal, ocean wave, tidal current, biomass and solar (also available on the website for order).

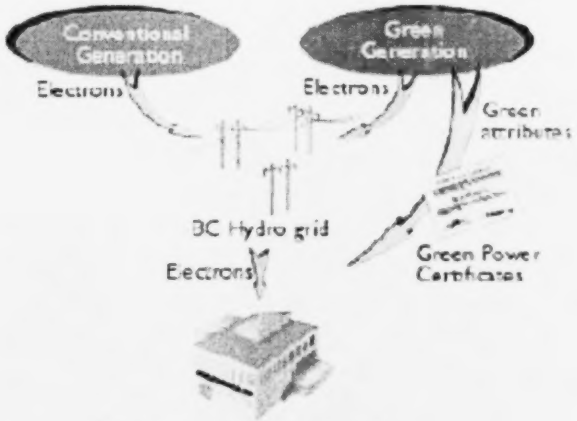
Development Assistance — BC Hydro published a Micro Hydro Handbook, designed to provide guidance to developers on all aspects of project development, including permitting, financing and building.

Integrated Energy Planning — BC Hydro is undertaking Community Energy Plans with the Taku River Tlingit First Nation at Atlin, and Gingolx First Nation in the Nisga'a Territory. Each of the communities has a unique energy profile, but they share the desire to look at sustainable and reliable energy options through an informed planning process. The community of Atlin is a non-integrated area not served by the BC Hydro grid, and relying on diesel generators for electricity. Gingolx Village is serviced by one line into the community and service is subject to some interruption due to natural factors affecting the line. Community Energy Planning involves partnering with the community to evaluate current and future energy needs, research options to meet those needs and, if desired by the community and aligned with BC Hydro objectives, assist in implementing appropriate options.

Supporting market-based mechanisms

Green Power Certificates

In keeping with triple bottom line thinking and the need to ensure that BC Hydro provides high-value, reliable power to fuel economic growth in British Columbia, BC Hydro is piloting the sale of Green Power Certificates (GPCs) to commercial customers. Powerex, BC Hydro's power marketing subsidiary, is concurrently piloting the sale of GPCs in the North American electricity marketplace. The product, which is similar to "green tags" sold elsewhere in the world, exclusively credits the purchaser of the GPC with the environmental and social benefits associated with green electricity meeting BC Hydro's criteria. Emission reductions are included in GPCs for all domestic sales but are optional for power trading customers. The green electricity acquired for GPCs is over and above the green energy acquired by BC Hydro to meet other commitments, including the clean energy target. In 2004 GHG report, GPC sales will be reflected in BC Hydro's inventory to illustrate the viability of accounting for avoided emissions from demand-side management and renewable energy in a certificate trading system.



Green Power Certificate purchaser

Progress report *(continued)*

Greenhouse gas offsets

BC Hydro has committed to offset 50 per cent of the GHG emissions from the Island Cogeneration Project (ICP) from start up through 2010 and will fulfill its commitment through new energy efficiency and renewable energy efforts that avoid greenhouse gas emissions.

Since establishing the voluntary offset commitment in December 2000, BC Hydro has initiated new Power Smart programs to conserve electricity and new Resource Smart projects to generate more energy at existing facilities. As well, it has contracted clean energy supply from independent power producers faster than required to fulfill its initial voluntary Green Energy target (10 per cent of new load), established in January 2000. This voluntary target was changed to 50 per cent of new supply from B.C. clean electricity as a component of the November 2002 provincial Energy Plan. These efforts will avoid GHG emissions, and these avoided emissions will be considered as offsetting GHG emissions from ICP.

BC Hydro will track the GHG emissions avoided by Power Smart, Resource Smart and clean energy activities in a clear and transparent manner and communicate progress in achieving the GHG offset commitment through the company's regular communication channels. This approach to offsetting greenhouse gas emissions will enable BC Hydro to meet its commitments in a cost-effective manner and demonstrate the viability of accounting for avoided emissions from demand-side management and renewable energy in an offset system.

Future activities

BC Hydro is well positioned to continue avoiding GHG emissions and to mitigate the potential financial impacts of impending GHG regulations.

Power Smart — As GHG regulations become reality, it is expected that the value of BC Hydro's past energy efficiency efforts will be recognized and that future efforts to avoid fossil fuel-fired generation through demand-side management will receive regulatory recognition under any GHG reduction targets.

B.C. clean energy — BC Hydro has surpassed its voluntary Renewable Portfolio Standard (10 per cent of new supply through 2010 from green resources), and expects to exceed the goal of 50 per cent of new supply from B.C. clean resources as well. This is the most aggressive clean energy portfolio standard that BC Hydro is aware of in Canada and it's expected to position the company well in a carbon-constrained future. Greenhouse gas regulations will need to allow electric utilities to choose clean energy as a way to meet their GHG targets, thus allowing them to reduce emissions while promoting sustainable economic development.

Stepped rates — One of the components of the provincial *Energy Plan* is direction to implement a stepped rate structure for transmission voltage customers. The intent of the stepped rate structure is to reflect the increased cost of meeting increasing demand through new resources and provide pricing signals that will encourage large industrial customers to conserve electricity or generate electricity from their own operations. The new rate structure will also support retail access opportunities for IPPs by allowing large customers to choose suppliers other than BC Hydro for a portion of their load.

Net metering — Net metering is a program that allows customers with their own generation to "bank" their excess electricity with their electric utility. In the simplest type of net metering, the customer has a single meter that runs forward when the customer is using electricity supplied by the utility. The meter runs backwards when the customer is "exporting" their excess electricity to the grid. BC Hydro is currently exploring options to allowing net metering to occur in its system.

Hydrogen refuelling technology — Over the next decade, hydrogen-fuelled vehicle travel will be supported as Powertech Labs, a BC Hydro research and development subsidiary, demonstrates that hydrogen fuelling stations will be both economical and efficient. With support from BC Hydro, Stuart Energy Systems and Dynetek Industries, Powertech Labs has initiated the Compressed Hydrogen Infrastructure Program (CH_2IP).

CH_2IP's vision is to demonstrate the technical feasibility of high-pressure gaseous hydrogen fuelling stations. This will set the standard for construction and operation of high-pressure hydrogen fuelling stations and will provide the basis for commercialization of hydrogen fuelling station infrastructure. Through the successful development of CH_2IP, Powertech believes it will accelerate the introduction of the emission-free, fuel cell vehicle.

Powertech Labs Inc. — This BC Hydro subsidiary is continuing research into reclamation and release abatement of SF_6. A novel technique for the purification of SF_6 contaminated with air using semi-permeable membranes has been successfully tested on a laboratory scale. Also, initial experiments using pressure swing adsorption have demonstrated the ability to purify and recover contaminated gas. This work continues, with the target being a field portable purification and recovery unit that will enable SF_6 purification on site, thereby eliminating the associated handling and shipping costs. This will also reduce the losses and venting of SF_6 from handling. Research into release abatement has also demonstrated the potential of collecting SF_6 gas that is normally vented to atmosphere during routine sampling for gas quality, safety and diagnostics.

Future activities *(continued)*

Setting targets

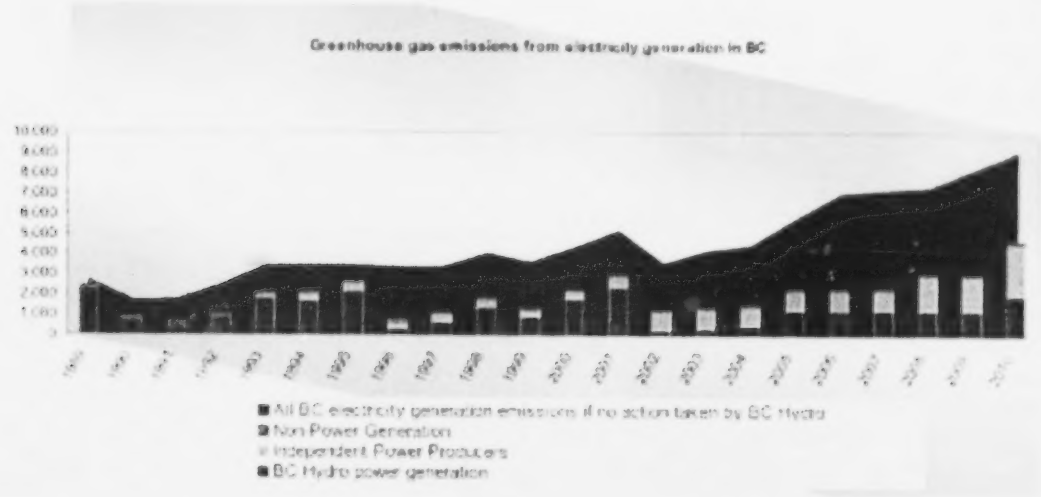
BC Hydro sets annual and multi-year targets for programs that reduce or avoid greenhouse gas emissions.

Power Smart, Resource Smart and clean energy are targeted to avoid 30 million tonnes of GHG emissions by 2010.

BC Hydro's base-year calculation — Emissions in a representative base year (usually 1990) are used as a reference point for measuring changes in emissions over time. The five-year period of 1989 through 1993 is representative of average water conditions and GHG emissions in the BC Hydro system in the early 1990s, so BC Hydro uses average emissions during this five-year period as a benchmark. Average annual emissions during this period were 1.4 million tonnes.

BC Hydro emissions below base year in 2002 — At 1.2 million tonnes, BC Hydro's emissions in 2002 were actually below the base-year average, despite the fact that demand for electricity has grown significantly since 1990.

Greenhouse gas emissions from electricity generation in B.C.



Communicating about GHG management

Communicating with the public — BC Hydro's annual GHG reports, for this year and previous years, are available on both the VCR Inc. and BC Hydro websites.

BC Hydro's website also contains information on the company's GHG situation and management efforts. It is updated through the year as developments occur.

Greenhouse gas reductions are an important outcome of BC Hydro's Green Energy, Power Smart and Resource Smart programs. Thus, in communication efforts around those programs, the public and BC Hydro employees are informed of the emission reduction benefits of those programs.

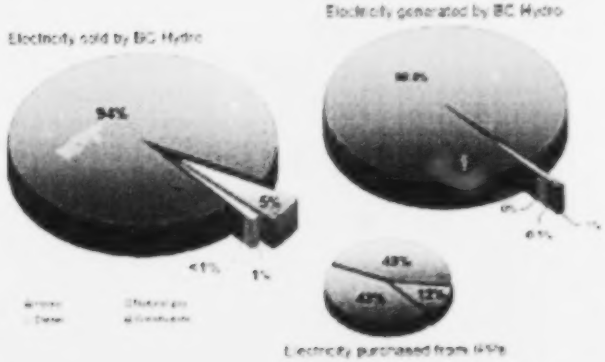
BC Hydro employees are kept informed about GHG management efforts and policy developments through internal communication channels.

BC Hydro's GHG emissions for 2002

GHG emissions

In keeping with standard international practice, BC Hydro quantifies its GHG emissions on a calendar-year basis.

- Domestic emissions were down 60 per cent from 3.0 million tonnes in 2001 to 1.2 million tonnes in 2002. Broken down by source:



BC Hydro's GHG emissions intensity, the measure of emissions per unit of production, was correspondingly down, from 63 tonnes per GWh to 25 tonnes per gigawatt hour in 2002, over 90 per cent less than the Canadian average for electricity of 233 tonnes per GWh. Factors that contributed to the reduced emissions were:

- Water supply was above average (109 per cent of normal)
- High gas prices and low electricity prices meant less demand for thermal generation
- Enhanced customer energy efficiency programs meant new load could be met with existing generation

Avoided emissions

Avoided GHG emissions totalled 2.36 million tonnes, broken down as follows:

Power Smart = 1.00 million tonnes (42 per cent)

- 2,423 GWh savings from legacy (previously existing) programs
- 220 GWh from new programs initiated since 2001

Resource Smart, Burrard Upgrade, SF_6 management = 0.35 million tonnes (15 per cent)

- New energy gains totalled 758 GWh (combines this year's gains with those from previous years)

Clean Energy purchases = 1.01 million tonnes (43 per cent)

- Purchase of 3,467 GWh

Emissions from reservoirs

The issue of greenhouse gas emissions from anthropogenic reservoirs has been investigated by BC Hydro and other large hydroelectric utilities across Canada and internationally. Experiments and studies exploring the GHG emissions flux of reservoirs have found that the reservoirs most likely to be net sources of GHGs are large, shallow reservoirs in tropical or sub-tropical climates. The marine to sub-arctic climate and mountainous topography of B.C. means that BC Hydro's reservoirs are typically cold, deep and very steep-walled and so are viewed as less of a concern than tropical reservoirs. Some B.C. reservoirs are thought to be net sources and some are thought to be net sinks for GHGs. In either case, the magnitude of emissions flux is much smaller than the net thermal emissions discussed in this report. For that reason, BC Hydro has elected not to include an estimation of the net impact B.C.'s reservoirs may have on the global climate. BC Hydro will continue to monitor scientific developments on this issue to ensure that it is managed as part of the company's comprehensive greenhouse gas management strategy.

BC Hydro's 2002 GHG inventory

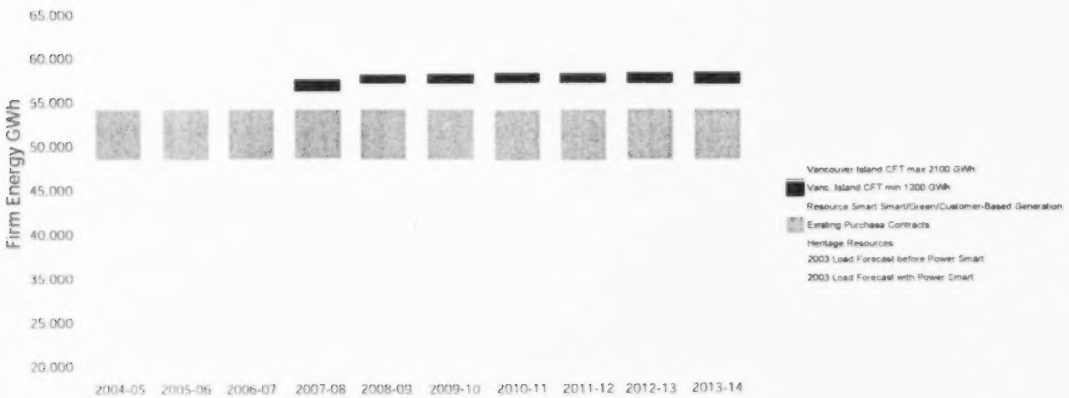
BC Hydro greenhouse gas inventory

		Actual				Forecast		
	Base year*	1995	2000	2001	2002	2003	2005	2010
Emissions if no action taken	**2.39**	**3.40**	**4.36**	**5.07**	**3.32**	**3.75**	**5.34**	**8.80**
Avoided emissions								
Customer efficiency programs	0.29	0.33	1.01	0.99	1.00	1.18	1.51	2.02
Purchase of cleaner power	0.59	0.31	0.83	0.93	1.01	1.14	1.35	1.78
Internal efficiency improvements	0.11	0.10	0.29	0.27	0.35	0.48	0.58	0.73
Total	**0.99**	**0.74**	**2.13**	**2.18**	**2.36**	**2.80**	**3.44**	**4.54**
Actual emissions								
BC Hydro facilities (incl. buildings and fleet)	1.39	2.34	1.94	2.49	0.38	0.32	1.27	2.02
B.C.-based independent power producers	0.01	0.32	0.30	0.51	0.82	0.95	0.95	2.56
Offsets	0.00	0.00	0.00	0.12	0.25	0.32	0.32	0.32
Total	**1.40**	**2.66**	**2.24**	**2.88**	**0.95**	**0.95**	**1.90**	**4.26**
GHG intensity (t/GWh)	35	61	46	63	25	24	41	77

* BC Hydro uses a 5-year average of 1989-1993 as its base year in order to correct for variable water levels during that period.

All amounts in millions of tonnes of carbon dioxide equivalent unless otherwise indicated.

System firm energy supply-demand balance



Glossary

carbon dioxide equivalent (CO2e): standard measure for GHG emissions, expressing the global warming potential of various gases over 100 years in terms of carbon dioxide equivalents. In this report, one tonne of methane is assumed to have 21 times the atmospheric impact of one tonne of CO_2 and is expressed as 21 tonnes CO_2e; nitrous oxide (N_20) is 310, and $SF6_6$ is 23,900.

greenhouse gas (GHG): gases that trap heat in the atmosphere; they include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_2) and sulphur hexafluoride (SF_6).

GHG intensity: a measure of the amount of emissions released during the generation of a given amount of energy; usually measured in tonnes of CO_2e per GWh.

GHG offset: project that compensates for GHG emissions from one source by lowering, avoiding, or sequestering (capturing and storing) emissions at another source.

gigawatt hour (GWh): one billion watts (or one million kilowatts) of electric power, supplied or produced for one hour; BC Hydro measures the output of a generating station in kW.

hydroelectricity: electricity produced by harnessing the power of falling water or streamflow.

independent power producer (IPP): operator of a privately owned electricity generating facility, usually connected to a utility's transmission system to sell electricity.

inflow: water flowing into a reservoir.

kilotonne (kt): 1,000 metric tonnes.

net power exports: the difference between total exports and total imports.

net power imports: the difference between total imports and total exports.

sulphur hexafluoride (SF6): a greenhouse gas used as an insulating and protective gas in transmission equipment.

tailrace: the portion of a waterway immediately below a dam.

terawatt hour (TWh): one TWh equals 1,000 GWh.

thermal generation: generation of electricity by converting heat energy into electric energy; generation through burning of fossil fuel or biomass (e.g., woodwaste).

Voluntary Challenge and Registry (VCR) Inc.: a non-government organization that encourages Canadian companies to voluntarily reduce GHG emissions and report on their progress.

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BC hydro